

## NOMENCLATURAL NOTES FOR THE NORTH AMERICAN FLORA. VIII

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### ABSTRACT

*Cynanchum louiseae* Kartesz & Gandhi, *nom. nov.* is proposed to replace *Cynanchum nigrum* (L.) Pers. (a later homonym of *Cynanchum nigrum* Cav.). *Kuhnia eupatorioides* L. var. *gracilis* Torr. & Gray is treated as a synonym of *Brickellia eupatorioides* (L.) Shinnars var. *eupatorioides*. The following new combinations are proposed: *Asclepias uncialis* E. Greene ssp. *ruthiae* (Maguire) Kartesz & Gandhi; *Baptisia bracteata* Muhl. ex Ell. var. *leucophaea* (Nutt.) Kartesz & Gandhi; *Descurainia incana* (Bernh. ex Fisch. & C.A. Mey.) Dorn ssp. *incisa* (Engelm. ex A. Gray) Kartesz & Gandhi; *D. incana* (Bernh. ex Fisch. & C.A. Mey.) Dorn ssp. *procera* (E. Greene) Kartesz & Gandhi; *D. incana* (Bernh. ex Fisch. & C.A. Mey.) Dorn ssp. *viscosa* (Rydb.) Kartesz & Gandhi; *Evax verna* Raf. var. *drummondii* (Torr. & Gray) Kartesz & Gandhi; *Lathyrus japonicus* Willd. var. *maritimus* (L.) Kartesz & Gandhi; *Phacelia hastata* Dougl. ex Lehmann var. *dasyphylla* (Jepson) Kartesz & Gandhi; *Pilosocereus robinii* (Lemaire) Byles & Rowley var. *deeringii* (Small) Kartesz & Gandhi; *Silphium compositum* Michx. var. *venosum* (Small) Kartesz & Gandhi; *Townsendia alpigena* Piper var. *caelilimensis* (Welsh) Kartesz & Gandhi.

KEY WORDS: Floristics, nomenclature, Asclepiadaceae, Asteraceae, Brassicaceae, Cactaceae, Fabaceae, Hydrophyllaceae, *Asclepias*, *Cynanchum*, *Baptisia*, *Brickellia*, *Descurainia*, *Erigeron*, *Evax*, *Lathyrus*, *Phacelia*, *Pilosocereus*, *Pisum*, *Silphium*, *Sisymbrium*, *Sophia*, and *Townsendia*.

### Introduction

Continuing with the "NOMENCLATURAL NOTES FOR THE NORTH AMERICAN FLORA" (Kartesz & Gandhi 1989, 1990a, 1990b, 1990c, 1991a, 1991b, 1991c), an eighth note in the series is presented here toward advancing our understanding of North American plant names.

## ASCLEPIADACEAE

*Asclepias uncialis* ssp. *ruthiae*

Maguire (in Maguire & Woodson, Ann. Missouri Bot. Gard. 28:246. 1941) stated that *Asclepias ruthiae* Maguire was closely related to a species complex including *A. uncialis* E. Greene. He characterized *A. ruthiae* as having broadly ovate leaves and short, lateral hood lobules. We believe that the above characters are inconsistent and conclude that *A. ruthiae* represents only a geographical variation of *A. uncialis*. Since Maguire's plant is found in Nevada, southern Utah, and northern Arizona, with *A. uncialis* occurring somewhat east of that range (i.e., in eastern Arizona, Colorado, and New Mexico), we treat *A. ruthiae* as a subspecies of *A. uncialis* and propose the following new combination.

*Asclepias uncialis* E. Greene ssp. *ruthiae* (Maguire) Kartesz & Gandhi, *comb. & stat. nov.* BASIONYM: *Asclepias ruthiae* Maguire in Maguire & Woodson, Ann. Missouri Bot. Gard. 28:245. 1941. TYPE: UNITED STATES. Utah: Emery Co., Calf Springs Canyon, 10 May 1940, R. & B. Maguire 18310 (UTC).

*Cynanchum louiseae*

The European black swallow-wort has been known as either *Cynanchum nigrum* (L.) Pers. or *Vincetozium nigrum* (L.) Moench. Authors who recognize both genera, characterize *Cynanchum* L. by its ten free segments constituting a double corona and characterize *Vincetozium* N.M. Wolf by its five lobed, single corona. Unfortunately, the binomial *C. nigrum* (L.) Pers. is a later homonym of *C. nigrum* Cav., and is thus illegitimate. Since we recognize *Cynanchum* sens. lat. (including *Vincetozium*), we provide a new name for the black swallow-wort in *Cynanchum*.

*Cynanchum louiseae* Kartesz & Gandhi, *nom. nov.* Based on: *Asclepias nigra* L., *Sp. Pl.* 216. 1753. *Vincetozium nigrum* (L.) Moench, *Meth. Suppl.* 313. 1802. *Cynanchum nigrum* (L.) Pers., *Syn. Pl.* 1:274. 1805, *non* Cav., 1793.

Note: The epithet *louiseae* is used here to honor Louise Kartesz, mother of the first author. Lectotypification of *Asclepias nigra* is being studied.

## ASTERACEAE

*Brickellia eupatorioides* var. *gracilis*

In their treatments of *Brickellia eupatorioides* (L.) Shinnery (based on *Kuhnia eupatorioides* L.), neither Shinnery (1971) nor Turner (1989) accounted for the trinomial *K. eupatorioides* L. var. *gracilis* Torr. & Gray. Torrey & Gray (1841, vol. 2:78) described the lower cauline leaves as being lanceolate and other leaves as being linear. Gray (1884, vol. 1(2):103) described the leaves as being lanceolate to narrowly linear and gave the distribution as Carolina, Florida, and Alabama. Based upon its phylogeography and leaf morphology, we speculated that Torrey and Gray's variety might represent the typical expression of *B. eupatorioides*. Our speculation was confirmed by the study of the type specimen. On typification, we provide the following information.

In their work, Torrey & Gray associated the Greek symbol  $\gamma$  with the epithet *gracilis*. They cited *Kuhnia critonia* sensu Ell. (*non* Willd.) and *K. paniculata* Cass. as synonyms. We found that for their var. *gracilis*, Torrey & Gray studied Gates' collection from Alabama. The label bears the name "*Kuhnia eupatorioides*  $\gamma$ ." Above the label, a hand written name: var. *gracilis* (possibly by Gray?) is found, followed by "Syn. Fl. North America."

Gates' collection bears Shinnery's (two) 1945 annotations: 1) type and 2) "var. *typica*" of *Brickellia eupatorioides*. The specimen also bears two other annotations: 1) by Flyr (in 1970) as *Kuhnia eupatorioides* var. *eupatorioides*; and 2) by Boufford (in 1982) as "possible type material of *K. eupatorioides* var. *gracilis*." Since Torrey & Gray cited *K. paniculata* as a synonym and since they did not designate a type, Gates' collection can not serve as a holotype; hence, var. *gracilis* needs lectotypification. We speculate that Torrey & Gray did not study Cassini's material and that their inclusion of *K. paniculata* as a synonym was based on Cassini's description. We, therefore designate Gates' collection as the lectotype.

*Brickellia eupatorioides* (L.) Shinnery var. *eupatorioides*

*Kuhnia eupatorioides* L. var. *gracilis* Torr. & Gray, *Fl. N. Amer.* 2:78. 1841. LECTOTYPE (chosen here): UNITED STATES. Alabama: Gates s.n.s.l. (GH!).

*Evax verna* var. *drummondii*

In reviewing the taxonomy of *Evax multicaulis* DC. and *E. verna* Raf., we recognize the former to be a taxonomic synonym of the latter. For the southeast United States, Cronquist (1980) used the name *E. multicaulis* without mention of *E. verna*, whereas Gandhi & Thomas (1989) accepted *E. verna*

and cited *E. multicaulis* as a synonym. Torrey & Gray (1842, vol. 2:263) also considered these to be conspecific. We transfer *E. multicaulis* var. *drummondii* to *E. verna* and propose the following new combination.

*Evax verna* Raf. var. *drummondii* (Torr. & Gray) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Filaginopsis drummondii* Torr. & Gray, *Fl. N. Amer.* 2:263. 1842. *Evax multicaulis* DC. var. *drummondii* (Torr. & Gray) A. Gray, *Syn. Fl. N. Amer.* 1(2):229. 1884. *Filago verna* (Raf.) Shinnery var. *drummondii* (Torr. & Gray) Shinnery, *Sida* 1:253. 1964. ?Isotype: UNITED STATES. Texas: *Drummond ?176* (PH; microfiche!).

*Silphium compositum* var. *venosum*

Cronquist (1980) treated *Silphium venosum* Small as a synonym of *S. compositum* Michx. Although we agree that these two taxa are closely related, we believe that Small's plant with pinnate or pinnatifid leaves can be differentiated from the typical expression of *S. compositum*, with mostly pedately divided leaves. Sweeney & Fisher (1970) treated the infraspecific taxa within *S. compositum* at subspecific rank: *S. compositum* ssp. *compositum* and ssp. *venosum* (Small) Sweeney & Fisher. Although these two taxa are sympatric in the northern range of ssp. *venosum*, both remain morphologically unique. Hence, we recognize *S. venosum* at varietal rank, and propose the following new combination.

*Silphium compositum* Michx. var. *venosum* (Small) Kartesz & Gandhi, *comb. & stat. nov.* BASIONYM: *Silphium venosum* Small, *Bull. Torrey Bot. Club* 25:478. 1898. *Silphium compositum* Michx. ssp. *venosum* (Small) Sweeney & Fisher, *Ohio J. Sci.* 70:232. 1970. TYPE: UNITED STATES. Georgia: Charlton Co., Okefenokee Swamp & the valley of the St. Mary's River, 12-15 Jun 1895, *Small s.n.* (NY; microfiche!).

*Townsendia alpigena* var. *caeliliniensis*

Since Jones (Zoe 4:262. 1893) proposed *Townsendia montana* as a provisional name ("Other forms that may eventually prove to be *T. scapigera* I have given the provisional name of *T. montana*."), he did not validate the binomial (*nom. invalid.*; Greuter *et al.* 1988; ICBN Art. 34.1[b]). We concur with Larsen (1927) and Beaman (1957) that the name *T. alpigena* Piper (*Bull. Torrey Bot. Club* 27:394. 1900) refers to the same species. If *T. montana* was

accepted and used in a publication prior to Piper's publication, then this binomial would have been validated. However, we were unable to locate such literature and therefore accept Piper's binomial. We transfer *T. montana* var. *caelilimensis* Welsh to *T. alpigena* with the following combination proposed.

*Townsendia alpigena* Piper var. *caelilimensis* (Welsh) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Townsendia montana* M.E. Jones var. *caelilimensis* Welsh, Great Basin Naturalist 43:370. 1983. TYPE: UNITED STATES. Utah: San Pete Co., Flagstaff Limestone, 13 Jul 1977, *Welsh & Clark 15385* (BRY).

## BRASSICACEAE

### *Descurainia incana*

At the Berlin Congress, it was ruled that names of new species proposed in Sweet's *Hortus Britannicus* and other such works are invalid, since the new species were not provided with validating descriptions or diagnoses (ICBN Art. 32.1, Ex. 3). However, several new combinations and new names in Sweet's publications are considered valid since Sweet made references to earlier descriptions or validly published basionyms (ICBN Art. 32.1c), such as *Oenothera nuttallii* Sweet (*Hort. Brit.*, ed. 2. 199. 1830), *nom. nov.* for *O. albicaulis* Nutt. 1818, *non* Pursh 1814.

Although Al-Shehbaz (1988, p. 235) and Detling (1939, p. 491) recognized the name *Descurainia richardsonii* "(Sweet) Schulz" (based on *Sisymbrium richardsonii* Sweet 1830), Dorn (1988, p. 302) rejected *S. richardsonii* and remarked that the name "was effectively invalidated by the 1987 International Congress." Dorn (p. 296) made the combination *D. incana* (Bernh. *ex* Fisch. & C.A. Mey.) Dorn, which was based on *S. incanum* Bernh. *ex* Fisch. & C.A. Mey. (the second oldest binomial, published in 1835, in this complex).

In our study, we found that in the protologue of *Sisymbrium richardsonii*, Sweet did not propose *S. richardsonii* as a new species, but proposed it as a *nomen novum* for "(*S.*) *canescens*. Richardson. *non* Nutt." For its validation, Sweet's binomial requires an effectively published description. Unfortunately Richardson provided no description for the preceding name. The following is quoted from Richardson (1823a, p. 16; in Franklin 1823, p. 744; in Brown 1825, p. 499): "*Sisymbrium canescens* ? Decand. *Syst.* p. 475 ? Nuttall. *Gen. Am.* ii. p. 68. ?" Later, Richardson (1823b, p. 27) mentioned the following: "*Sisymbrium canescens*, Frankl. *Append.* I ed. No. 259, p. 744. *non* Nuttall. *fide* Nuttallio." Both protologues of Richardson's work indicate that Richardson was uncertain regarding the identity of his material. Of the two references mentioned by Richardson, Sweet explicitly excluded Nuttall's

description. In doing so, Sweet indirectly excluded De Candolle's description, since De Candolle's taxonomy was the same as that of Nuttall. In his *British Flower Garden*, ser. 2 (published in 1829-1837), Sweet did not treat *S. richardsonii*.

Hooker (1830, p. 62) referenced Richardson's second edition of *Botanical Appendix* and Nuttall's *Sisymbrium canescens* (with a ?) in the protologue of *S. canescens* var. *major* Hook. Hooker stated that Nuttall was of the opinion that Richardson's plants were distinct from his *S. canescens*. Since both Sweet's and Hooker's publications appeared in the same year, it is likely that neither of them was aware of the other's treatment. G. Don (1831, p. 207) used the name *S. canescens* Nutt. and had no comments on *S. richardsonii*.

From this historical background, it is evident that *Sisymbrium richardsonii* lacked a pre-1835, effectively published description. Until or unless it can be shown that a pre-1835, effectively published description is available for *S. richardsonii*, the combination *Descurainia richardsonii*, which was based on the invalidly published *S. richardsonii*, must be treated as a species novum in Schulz's work, without a parenthetical author and with its priority from 1924 (not from 1830). Based on priority, the binomial *D. richardsonii* must be treated as a synonym of *S. incana* (as indicated by Dorn). We recognize four subspecies within *D. incana* (listed below), with three new combinations.

*Descurainia incana* (Bernh. ex Fisch. & C.A. Mey.) Dorn, *Vasc. Pl. Wyoming* 296. 1988. ssp. *incana*. BASIONYM: *Sisymbrium incanum* Bernh. ex Fisch. & C.A. Mey., *Ind. Sem. Hort. Petrop.* 1:38. 1835. *Sisymbrium richardsonii* Sweet, *Hort. Brit.*, ed. 2. 30. 1830, *nom. invalid.* *Descurainia richardsonii* O.E. Schulz in Engler, *Pflanzenr. Fam. no. IV.* 105, left. no. 86:319. 1924.

*Sisymbrium canescens* Nutt. var. *major* Hook., *Fl. Bor. Amer.* 1:62. 1830. BASIONYM: *Descurainia incana* (Bernh. ex Fisch. & C.A. Mey.) Dorn var. *major* (Hook.) Dorn, *Vasc. Pl. Wyoming* 296. 1988.

*Descurainia incana* (Bernh. ex Fisch. & C.A. Mey.) Dorn ssp. *incisa* (Engelm. ex A. Gray) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Sisymbrium incisum* Engelm. ex A. Gray, *Mem. Amer. Acad. Sci. Arts*, n.s. 4:8. 1849. *Descurainia richardsonii* O.E. Schulz ssp. *incisa* (Engelm. ex A. Gray) Detling, *Amer. Midl. Naturalist* 22:494. 1939. LECTOTYPE (*vide* Detling, 1939, p. 494): UNITED STATES. New Mexico: Mora River, *Fendler 29* (GH).

*Descurainia incana* (Bernh. ex Fisch. & C.A. Mey.) Dorn ssp. *procera* (E. Greene) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Sophia procera* E. Greene, *Pittonia* 4:199. 1900. *Descurainia richardsonii* O.E. Schulz ssp. *procera* (E. Greene) Detling, *Amer. Midl. Naturalist* 22:491. 1939.

TYPE: UNITED STATES. Colorado: Rocky Mountains, Pagosa Peak, Aug 1899, *Baker ?60* (ND-G); Isotype: (NY; microfiche!).

*Sophia brevipes* Rydb., Bull. Torrey Bot. Club 29:238. 1902. *Descurainia richardsonii* O.E. Schulz var. *brevipes* (Rydb.) Welsh & Reveal, Great Basin Naturalist 37:314. 1978 ("1977").

*Descurainia richardsonii* O.E. Schulz var. *macrosperma* O.E. Schulz in Engler, *Pflanzenr. Fam. no. IV. 105*, heft. no. 86:319. 1924. *Descurainia incana* (Bernh. ex Fisch. & C.A. Mey.) Dorn var. *macrosperma* (O.E. Schulz) Dorn, *Vasc. Pl. Wyoming* 296. 1988.

Note: Both *Sophia brevipes* Rydb. and *Descurainia richardsonii* var. *brevipes* (Rydb.) Welsh & Reveal were based on "*Sisymbrium canescens* var. *brevipes* Nutt." In our study, we found that in the protologue of *Sisymbrium canescens*, Torrey & Gray (1838, vol. 1:92) recognized six varieties designated by Greek symbols and the symbol ζ was followed by a statement "(*brevipes* Nutt. MSS)" along with a six word diagnosis provided by Nuttall. In numerous treatments of their work, Torrey & Gray associated Greek symbols with accepted varietal epithets (e.g., p. 85). Since the epithet *brevipes* was parenthetically provided, we believe that Torrey & Gray did not accept the trinomial and that it was invalidly published (ICBN Art. 34.1[a]). Hence, we conclude that although the name *Sophia brevipes* Rydb. was based on a Nuttallian specimen, the priority of the name was established from Rydberg's 1902 usage. Since Welsh & Reveal's variety was also based on Nuttall's specimen, the parenthetical author for Welsh & Reveal's combination must be Rydberg. At varietal rank, the trinomial *D. richardsonii* var. *macrosperma* O.E. Schulz has priority, as recognized by Dorn (1988, p. 108).

*Descurainia incana* (Bernh. ex Fisch. & C.A. Mey.) Dorn ssp. *viscosa* (Rydb.) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Sophia viscosa* Rydb., Bull. Torrey Bot. Club 29:238. 1902. *Descurainia richardsonii* O.E. Schulz ssp. *viscosa* (Rydb.) Detling, Amer. Midl. Naturalist 22:492. 1939. *Descurainia incana* (Bernh. ex Fisch. & C.A. Mey.) Dorn var. *viscosa* (Rydb.) Dorn, *Vasc. Pl. Wyoming* 296. 1988. TYPE: UNITED STATES. Idaho: Beaver Cañon, 1895, *Shear 3029* (NY; microfiche!).

## CACTACEAE

### *Pilosocereus robinii* var. *deeringii*

We recognize *Pilosocereus* Byles & Rowley and *Cereus* L. as distinct genera. In this connection, we transfer *C. robinii* (Lemaire) L. Benson var. *deeringii* (Small) L. Benson to *P. robinii* (Lemaire) Byles & Rowley and propose the following new combination.

*Pilosocereus robinii* (Lemaire) Byles & Rowley var. *deeringii* (Small) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Cephalocereus deeringii* Small, J. New York Bot. Gard. 18:201. 1917. *Pilosocereus deeringii* (Small) Byles & Rowley, Cact. Succ. J. Gr. Brit. 19:67. 1957. *Cereus robinii* (Lemaire) L. Benson var. *deeringii* (Small) L. Benson, Cact. Succ. J. (Los Angeles) 41:126. 1969. TYPE: UNITED STATES. Florida: Lower Matecumbe Key, 8 Apr 1916, *Small 7790* (NY).

## FABACEAE

### *Baptisia bracteata* var. *leucophaea*

When Larisey (Ann. Missouri Bot. Gard. 27:161. 1940) proposed *Baptisia leucophaea* Nutt. var. *glabrescens* Larisey, she automatically created the autonym *B. leucophaea* var. *leucophaea*. We concur with Isely (1990) that the type of *B. leucophaea* var. *glabrescens* is included within the type variety of *B. leucophaea*. On their transfers to *B. bracteata* Muhl. ex Ell. at varietal status, the autonym *B. leucophaea* var. *leucophaea* has priority over *B. leucophaea* var. *glabrescens* (ICBN Art. 57.3). We therefore propose the following new combination.

*Baptisia bracteata* Muhl. ex Ell. var. *leucophaea* (Nutt.) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Baptisia leucophaea* Nutt., *Gen. N. Amer.* 1:282. 1818. var. *leucophaea* (automatically created by *B. leucophaea* Nutt. var. *glabrescens* Larisey). TYPE: UNITED STATES. Missouri: St. Louis, *Nuttall s.n.* (PH; microfiche!).

*Baptisia leucophaea* Nutt. var. *glabrescens* Larisey, Ann. Missouri Bot. Gard. 27:161. 1940. *Baptisia bracteata* Muhl. ex Ell. var. *glabrescens* (Larisey) Isely, *Brittonia* 30:470. 1928. TYPE: UNITED STATES. Missouri: Iron Co., Pilot Knob, 10 May 1936, *Larisey 4* (MO).

### *Lathyrus japonicus* var. *maritimus*

Ball (*in* Tutin *et al.* 1968, vol. 4:138) recognized two subspecies in *Lathyrus japonicus* Willd. and characterized them as follows: ssp. *japonicus* possessing 2 to 7 flowered racemes, pubescent calyces, and 18-25 mm long corollas, whereas ssp. *maritimus* (L.) Ball possessing 5 to 12 flowered racemes, usually glabrous calyces, and 14-20 mm long corollas. Since these two expressions are morphologically separable, we recognize them at varietal rank. Our study follows.



Fernald (Rhodora 34:181. 1932) transferred *Pisum maritimum* L. var. *glabrum* Ser. to *Lathyrus japonicus* Willd. and made the varietal combination: *L. japonicus* var. *glaber* (Ser.) Fern. However, when Seringe proposed *P. maritimum* var. *glabrum*, he automatically created *P. maritimum* var. *maritimum*. Since we consider them to be convarietal and since the autonym has priority over the taxon that established it (ICBN Art. 57.3), we transfer var. *maritimum* to *L. japonicus* and propose the following new combination.

*Lathyrus japonicus* Willd. var. *maritimus* (L.) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Pisum maritimum* L., *Sp. Pl.* 2:772. 1753. var. *maritimum* (automatically created by *Pisum maritimum* L. var. *glabrum* Ser.). *Lathyrus maritimus* (L.) Fries, *Fl. Scand.* 106. 1835 (*non* Bigelow 1824). *Lathyrus japonicus* Willd. ssp. *maritimus* (L.) P.W. Ball, *Feddes Rep.* 79:45. 1968.

*Pisum maritimum* L. var. *glabrum* Ser. in DC., *Prodr.* 2:368. 1825. *Lathyrus japonicus* Willd. var. *glaber* (Ser.) Fern., *Rhodora* 34:181. 1932. *Lathyrus maritimus* Bigelow, *Fl. Boston.*, ed. 2. 268. 1824.

## HYDROPHYLLACEAE

### *Phacelia hastata* var. *dasyphylla*

Since Baker (*W. Amer. Pl.* 3:9. 1904) proposed *Phacelia dasyphylla* E. Greene as a *nom. nud.* and since Brand (in Engler, *Pflanzenr.* no. IV 251, heft. no. 59:97. 1913) cited *P. dasyphylla* as a synonym of *P. magellanica* (Lam.) Cov. forma minor Brand, neither worker validated the binomial. Although Macbride (*Contr. Gray Herb.* 49:35. 1917) listed the name without description, the characters that he used in his key pp. 32-33) to distinguish *P. dasyphylla* from the remainder of the *P. magellanica* group, were sufficient to validate the name. Macbride cited Culbertson's 1904 collection as the type.

Without referencing any of the earlier works on *Phacelia dasyphylla*, Jepson (1925) recognized this taxon at varietal rank: *P. heterophylla* Pursh var. *dasyphylla* Jepson. He typified the trinomial by A.L. Grant's 1918 collection. Since Jepson typified his variety by a type different from that of Greene's plant, the status of Jepson's trinomial is questionable. We consider Jepson's trinomial as a var. nov.

Heckard (1960, p. 93) transferred *Phacelia dasyphylla* to *P. frigida* E. Greene at subspecific rank and cited *P. heterophylla* var. *dasyphylla* as a synonym. We treat *P. frigida* to be synonymous with *P. hastata* Dougl. ex Lehmann var. *compacta* (Brand) Cronq. and transfer *P. dasyphylla* to *P. hastata*. A new varietal combination is proposed here.

*Phacelia hastata* Dougl. ex Lehmann var. *dasyphylla* (E. Greene ex Macbride) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Phacelia dasyphylla* E. Greene ex Macbride, *Contr. Gray Herb.* 49:32,33,35. 1917. *Phacelia frigida* E. Greene ssp. *dasyphylla* (E. Greene ex Macbride) Heckard, *Univ. California Publ. Bot.* 32:93. 1960. TYPE: UNITED STATES. California: Tulare Co., Mt. Whitney, 15 Aug 1904, *Culbertson 4355* (ND-G); isotypes: (CAS (photocopy)!, NY (microfiche)!).

*Phacelia heterophylla* Pursh var. *dasyphylla* Jepson, *Man. Fl. Pl. Calif.* 819. 1925. TYPE: UNITED STATES. California: Fresno Co., Silver Pass, 18 Aug 1918, *A.L. Grant 1532* (JEPS).

#### ACKNOWLEDGMENTS

We are grateful to: Dr. Paul A. Fryxell (TAES) and Dr. Larry E. Brown (SBSC) for their valuable comments on the manuscript; Dr. E.G. Voss (MICH) for his help on the nomenclature of *Cynanchum nigrum*; Mr. Bryan Dutton (GH) for providing literature on Richardson's treatment of *Sisymbrium canescens* and for verifying the absence of *S. richardsonii* in Sweet's *British Flower Garden*; Dr. Alva Day (CAS) for providing the literature on *Phacelia dasyphylla*; Dr. Jimmy Massey (NCU) for assisting on the loan of Gates' collection from GH; and Mr. William Burk (UNC) for assisting on the interlibrary loan of Sweet's 1830 publication.

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